

Title (en)  
IN-PLANE SWITCHING DISPLAY DEVICES

Title (de)  
SCHALTANZEIGEANORDNUNGEN AUF GLEICHER EBENE

Title (fr)  
DISPOSITIFS AFFICHEUR A COMMUTATION DANS LE PLAN

Publication  
**EP 1938302 B1 20141112 (EN)**

Application  
**EP 06796033 A 20060914**

Priority  
• IB 2006053289 W 20060914  
• US 72685405 P 20051014

Abstract (en)  
[origin: WO2007042950A2] A drive method is provided for a display device using the movement of charged particles with a pixel area, with each pixel having first and second drive electrodes (20,23; 22) and a pixel electrode (26). The method comprises a reset phase to move the particles in each pixel towards the first drive electrode (20,23), a pixel data loading phase, to cause selected particles either to stay in the vicinity of the first drive electrode (20,23) or move towards the pixel electrode (26), and a drive phase to distribute the particles which have moved towards the pixel electrode over the pixel electrode (26). The address phase is line-by-line but can be made short, and the other phases can be carried out in parallel for all pixels, saving time.

IPC 8 full level  
**G09G 3/34** (2006.01)

CPC (source: EP KR US)  
**G09G 3/2011** (2013.01 - KR); **G09G 3/2014** (2013.01 - KR); **G09G 3/2018** (2013.01 - KR); **G09G 3/3446** (2013.01 - EP KR US);  
**G09G 3/2011** (2013.01 - EP US); **G09G 3/2014** (2013.01 - EP US); **G09G 3/2018** (2013.01 - EP US); **G09G 2300/0426** (2013.01 - EP KR US);  
**G09G 2300/0434** (2013.01 - EP KR US); **G09G 2300/06** (2013.01 - EP US); **G09G 2310/06** (2013.01 - EP US);  
**G09G 2310/063** (2013.01 - EP KR US); **G09G 2320/0209** (2013.01 - EP KR US); **G09G 2320/0233** (2013.01 - EP KR US);  
**G09G 2320/0252** (2013.01 - EP KR US)

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2007042950 A2 20070419; WO 2007042950 A3 20071018**; CN 101288113 A 20081015; CN 101288113 B 20101208;  
EP 1938302 A2 20080702; EP 1938302 B1 20141112; JP 2009511975 A 20090319; JP 5406526 B2 20140205; KR 101431231 B1 20140821;  
KR 20080063305 A 20080703; TW 200721070 A 20070601; TW I421816 B 20140101; US 2008238868 A1 20081002; US 8432355 B2 20130430

DOCDB simple family (application)  
**IB 2006053289 W 20060914**; CN 200680038173 A 20060914; EP 06796033 A 20060914; JP 2008535140 A 20060914;  
KR 20087008507 A 20060914; TW 95137811 A 20061013; US 9013306 A 20060914